

Linking Small Business Networks with Innovation

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INTRODUCTION AND BACKGROUND

Today, with an economy enabled and driven by connectivity, a fundamental shift in business models is occurring whereby information, knowledge, and relationships underpin competitive advantage. In order to compete in what some refer to as the networked economy, companies across the globe must use technology-mediated channels, create internal and external value, formulate technology convergent strategies, and organize resources around knowledge and relationships (Scott & Storper, 2003).

The rise of information and communication technologies (ICT) and electronic information networks has led firms of all sizes to implement more technology driven solutions for improved productivity and information flow. Malhotra (2000) identified three general information management (IM) developments that have revolutionized company information processes over the last 40 years. The first phase, the automation phase, increased company efficiency of operations. The second phase, the rationalization phase, streamlined those procedures by eliminating bottlenecks made apparent by the automation. The third phase, the business reengineering phase, radically redesigned information and knowledge management processes through technology-intensive implementation of procedures in workflows and work processes (Malhotra, 2000). Now we have reached a fourth phase, the knowledge creation and knowledge transfer phase, that, if possible, is even more closely associated with technology than business process reengineering.

With embedded knowledge flows and innovation linked to communities of practice as well as through linkages using technology, companies of all sizes have the potential to both collaborate and compete by taking advantage of connectivity and new relationships founded on the exchange and sharing of

embedded knowledge. This article discusses how knowledge sharing environments such as communities of practice and virtual business communities can be important determinants of commercial viability and business success for small and medium sized enterprises (SMEs), provided that both the (virtual) environment and inter-firm relationships are conducive to information sharing and knowledge flows.

COMMUNITIES OF PRACTICE

Once the domain of special business units and cross-functional teams to perpetuate ideas and embed core competencies, a new form of collective community building has emerged through a spontaneous new knowledge exchange trend known as communities of practice, or CoPs. Burk (2000) simply calls CoPs expansions of one-on-one knowledge sharing. Theorists, Wenger, Snyder, and William (2000) describe them as informal groups of people who regularly share their expertise and experiences; are not formulated or controlled by management; set their own leadership; and follow their own agenda. Lave and Wenger (1991) were among the first to introduce CoPs as context-bound groups of workers who share knowledge around a particular practice.

In many ways, communities of practice are the Western adoption of the holistic Japanese approach outlined by Nonaka and Takeuchi (1995) in acknowledging the importance of tacit company knowledge and transforming it into explicit company assets. However, one of the central benefits of these self-constituting communities is that they sidestep the “ossifying tendencies of large companies and develop rich, fluid non-canonical worldviews to bridge the gap between their organisation’s static canonical view and the challenge of changing practice” (Brown & Duguid, 1991, p. 50). This spontaneous think-tank

mode of team building through face to face meetings, e-mail, knowledge sharing networks, intranets, and technology-mediated conferencing is an inherently innovative process and is proving to be a crucial aspect of organizational learning and innovation.

Initially, most communities of practice were internal company networking groups to foster shared learning and practices to encourage team-based incentives that directly influenced company profits (McDermott, 2004). Showing great promise in driving organizational learning and innovation, this form of knowledge creation is being adopted in both the public and private sectors, as it is considered the key to survival in the knowledge economy. Communities of practice have also flourished with members from different companies, as exemplified by the chief executive officers (CEOs) of different US companies who make up the Business Roundtable (Wenger et al., 2000).

The application of CoPs to an inter-firm context is in line with the new business models that are favored in the networked economy, in which connectivity, relationships, and knowledge sharing are key assets for competitive advantage (Soekijad, Huis in 't Veld & Enserink, 2004). Within the networked environment, the relationship between connectivity and companies should be seen as reciprocal, whereby ICT and related capabilities – such as virtual community environments like chat rooms and e-mail forums used for product development, product review, and other business information exchange—have a significant impact on how inter-organizational relationships are developed. Examples of new economy inter-firm knowledge sharing may be found in Internet-based companies such as Amazon and e-Toys, which have successfully re-defined the value of knowledge assets by fostering information flows between organizations and industries in virtual community environments (Malhotra, 2000). It should be noted that, contrary to the latter example, there are many different forms of sociocultural communities of practice proliferating in the virtual environment with objectives other than competitive advantage, discussion of which falls outside the scope of this article.

While CoPs and other complementary inter-firm relationships have been the subject of considerable empirical research in large enterprises (e.g., McDermott, 2004, p. 624; Pfeffer, 2000, p. 358;

Soekijad et al., 2004, p. 623), studies on the role of CoPs with regard to small and medium sized enterprises (SME) are less abundant. Building on the concept that global positioning and competitive advantage for SME may be achieved through clustering or network building and collaborative knowledge creation, the rest of this article explores the potential of a timely synergy between connectivity and collaborative business models for SME in embracing knowledge community practices.

SMALL BUSINESS NETWORKS

As seen above, ICT and related capabilities such as virtual community environments can have a significant impact on how inter-organizational relationships are developed. However, the structure and culture of an existing network of organizations itself also seems to have considerable predictive power for the way in which the telecommunications network is developed, implemented, and used (Nouwens & Bouwman, 1995). Adoption of network structures and networked technologies by SME is generally related to the size and nature of SME and largely depends on their perception of affordability and business growth opportunities for their business (OECD, 2000).

New ways of doing business to achieve success in the techno-economic innovation paradigm bring to the fore ICT adoption and strategic planning issues. Research into the adoption of networked technologies by SME indicates that SME generally approach clustering and networked infrastructures such as the Internet with caution and still hesitate to invest their time and money in a rapidly changing economy (NOIE, 2000), nor do SME necessarily view the Internet as a vehicle to transform their individual business capability from a parochial to a networked or global level, which may be achieved through the set-up of electronic commerce (e-commerce) portals or other Web-enabled cluster structures (Murray & Trefts, 2000). The latter study cites lack of technology skills, lack of a strategic sense of how to move forward, and fear of competitor use of the Internet as significant barriers for uptake of networked technologies by SME. Therefore, creating network infrastructures and knowledge flows between small firms is contingent, not on adop-

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